

Application No. 09/681,471
Attorney Docket No. 15-IS-5715
Amendment dated March 10, 2006
Reply to Office Action of December 14, 2005

REMARKS AND ARGUMENTS

The present application includes claims 1-8, 11-20, 23-36 and 53-54. Claims 1-8, 11-20, 23-36 and 53-54 were rejected in the December 14, 2005 Office Action. The Applicant has amended claims 1, 15, 25 and 36.

Claim 1 is amended to recite a status monitor for controlling the transfer of the medical data from the data source to a centralized remote data store, wherein the status monitor monitors operations occurring at the data source and triggers an archive request after the medical data is obtained by the data source, the data source transmitting the medical data to the centralized remote data store when the archive request is triggered.

Claim 15 is amended to recite a status monitor for controlling the transfer of the medical data from the centralized remote data store to a data source, wherein the status monitor automatically detects an error in the medical data at the data source by detecting at least one of data loss, data corruption, and failure of the system via a front-end connection between the data source and the status monitor, the status monitor instructing the centralized remote data store to transmit data to the data source in order to restore the medical data, wherein the data source receives the medical data and stores the medical data.

Claim 25 is amended to recite detecting an operation involving medical data executed at a medical data source, where the operation includes obtaining the medical data at the medical data source. Claim 25 is also amended to recite transferring the medical data from the medical data source to a centralized remote data store based on a trigger, where the trigger is produced by a

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status monitor after the operation occurs, where the medical data comprises at least one of a medical image, a medical report, and a medical application.

Claim 36 is amended to correct an erroneous antecedent basis caused by a typographical error.

Claims 1-2, 5 and 7-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild et al. (U.S. Patent No. 6,678,703 (cited herein as "Rothschild") in view of Kumagai et al. (U.S. Patent No. 6,081,809 (cited herein as "Kumagai").)

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, and further in view of Alisuag. (U.S. Patent App. No. 2002/0083192 (cited herein in "Alisuag").)

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, and further in view of Dethloff. (U.S. Patent No. 5,902,981 (cited herein as "Dethloff").)

Claims 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, and further in view of Parvulescu et al. (U.S. Patent No. 6,678,764 (cited herein as "Parvulescu").)

Claims 15-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff.

Claim 19 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff, and further in view of Alisuag.

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Claim 23 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff.

Claim 24 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff, and further in view of Parvulescu.

Claims 25-29, 31-34 and 53-54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu.

Claim 30 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu, and further in view of Alisugag.

Claims 35-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu, and further in view of Dethloff.

Rejections Under 35 U.S.C. § 103(a)

1. Rothschild In View Of Kumagai

The Applicant first turns to the rejection of claims 1-2, 5 and 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai. Rothschild discloses a medical image management system and method. The system of Rothschild includes a medical imaging system, a local image workstation and a central data management system. (Kumagai, col. 8, lines 45-48.) The medical imaging system produces an electronic record that includes an electronic image associated with a region of a patient's body. (*Id.*, col. 8, lines 48-51.) The local image workstation communicates with the medical imaging system so that the electronic record is transmitted from a medical imaging device to the local image workstation. (*Id.*, col. 8, lines

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51-58.) The central data management system communicates with the local image workstation so that the electronic record is transmitted from the local image workstation to the central data management system. (*Id.*, col. 8, lines 55-59.) The central data management system also transmits the electronic record to remote viewing systems. (*Id.*, col. 8, lines 59-63.)

However, Rothschild does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Instead, Rothschild merely describes a local image workstation that "pushes" an electronic record to the central data management system once data is obtained by the local image workstation. (*Id.*, col. 18, lines 53-56.) The local image workstation is not triggered by any other component of the system to transmit the image data. Instead, the local image workstation merely transmits the data once it is obtained.

The local image workstation of Rothschild does not wait for any trigger, request, command, or directive from a status monitor. In fact, Rothschild clearly distinguishes the "pushing" of data by the local image workstation from triggering a transmission of medical data by contrasting the "pushing" of data with the "pulling" of data. (*Id.*, col. 18, lines 53-56; col. 22, lines 25-43.) For example, Rothschild defines the "pushing" of data as the transmission of data as soon as the data is obtained, without waiting for any request for the data or directive from a status monitor to transmit the data. (*Id.*, col. 22, lines 25-28.) By way of contrast, Rothschild defines the "pulling" of data as the transmission of data after a request is made for the data by a

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user. (*See id.*, col. 22, lines 28-30.) Rothschild clearly states that the central data management system "pushes" the data and does not "pull" the data. Therefore, a data source in Rothschild does not wait for any trigger to transmit medical data for storage. Thus, Rothschild does not teach or suggest elements of at least claim 1.

Kumagai describes an interpolative method and system for producing medical charts and monitoring and recording patient conditions. However, Kumagai does not remedy the shortcomings of Rothschild. Kumagai does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Kumagai does not teach or suggest any status monitor. Therefore, Kumagai also fails to teach or suggest elements of at least claim 1.

Assuming for the sake of argument that one would be motivated to combine Rothschild and Kumagai, the combination also fails to teach or suggest elements of claim 1. As described above, both Rothschild and Kumagai fail to teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Therefore, a combination of Rothschild and Kumagai also fails to teach or suggest elements of claim 1.

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The present rejection encompasses claims 1-2, 5 and 7-8. The Applicant respectfully submits that neither Rothschild nor Kumagai, taken alone or in combination, teaches or suggests elements of claim 1. Claims 2, 5 and 7-8 depend from claim 1. Therefore, claims 1-2, 5 and 7-8 should be allowable.

2. Rothschild In View Of Kumagai And Further In View Of Alisuag

The Applicant next turns to the rejection of claims 3-4 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Kumagai, and further in view of Alisuag. Alisuag describes a computer oriented record administration system. The system in Alisuag provides for access to a portable memory device by two users. (Alisuag, ¶ 11.) Specifically, a portable memory element 22 can contain identification and medical information about a patient 24 being treated by a first user 40.1. (*Id.*, ¶ 12.) In order for the first user 40.1 and a second user to obtain access to the information in element 22, first user 40.1 obtains a passkey from a server computer system 12. (*Id.*, ¶ 14.) The passkey is then provided to the second user 40.2 from the first user 40.1 over a separate communication channel. (*Id.*) The second user 40.2 provides the passkey to the server computer system 12 and is provided with access to the data on element 22. (*Id.*)

Alisuag also describes an authenticator 402 that provides for authentication of access by a client to CORBAMED servers. (*Id.*, ¶ 45.) CORBAMED servers are defined by Alisuag as servers within the CORBAMED standard. (*Id.*, ¶ 28.) The CORBAMED standard is the Object Management Group, Inc. supported interface for the electronic exchange of medical data. (*Id.*) Alisuag describes five functions performed by CORBAMED servers. (*Id.*, ¶¶ 28-42.) The

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functions of CORBAMED server described in Alisuag consist of (1) a framework for correlating a patient's medical data from a number of different databases (*id.*, ¶ 31), (2) a service that reconciles different data format requests issued by medical systems (*id.*, ¶ 35), (3) a service that provides a common interface for healthcare systems exchanging clinical observations (*id.*, ¶ 37), (4) a service that provides access to clinical images and related information where DICOM is not required (*id.*, ¶ 40), and (5) a mechanism for obtaining authorization decisions and administering access decision policies. (*Id.*, ¶ 42.) None of the functions of CORBAMED servers described in Alisuag involve the providing of medical data.

However, Alisuag does not remedy the shortcomings of Rothschild and Kumagai, as described above.

A. Claim 4: None Of The References Teaches Or Suggests An Access Authenticator That Authenticates Access To A Data Source

The Applicant agrees with the Examiner that neither Rothschild nor Kumagai teaches an access authenticator that authenticates access to a data source. (December 14, 2005 Office Action, page 5.) Alisuag also does not teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4. Assuming for the sake of argument that ¶ 45 of Alisuag describes authenticating access to a remote data store (as the Examiner asserts in the Office Action mailed December 14, 2005 at page 5) access is only authenticated for a data store, and not a data source.

That is, Alisuag merely describes authenticating access to CORBAMED servers. (*Id.*, ¶ 45.) As described above, none of the CORBAMED servers provide medical data comprising at least one of a medical image, a medical patient report, and a medical application. Therefore,

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none of the CORBAMED servers constitute a medical data source (as recited in claim 1). Consequently, Alisuag does not teach or suggest authenticating access to a medical data source, as recited in claim 4.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai and Alisuag, such a combination also fails to teach or suggest elements of claim 4. As described above, each of Rothschild, Kumagai and Alisuag fails to teach or suggest an access authenticator that authenticates access to a data source, as recited in claim 4. Therefore, a combination of these references also fails to teach or suggest all elements of claim 4.

In addition, Rothschild explicitly teaches away from authenticating any access to a remote data store or to a data source by repeatedly criticizing the authentication required by other systems and methods to deliver medical images:

In general, most of the known systems and method for managing medical images in electronic record format use "pull" type image delivery protocol which requires the referring physician to log on to a web server and then download his or her patient's images. However, busy physicians do not have the time or the desire to access their patient's images in this manner. The "pull" model requires the physician to log in as well as extensive physician input and time to initiate the data transfer.

(Rothschild, col. 4, lines 42-50.)

All other known medical image management systems and methods are believed to require the physician to log on to web sites and then download the images to his computer. Hence, with other ASP systems not associated with the present invention, if the physician wishes to see his patients' images again, he must repeat the extensive and lengthy login and download procedures. It is believed that such methods which rely upon the physician to actively login and download, will be unacceptable for the referring doctors who are extremely busy and are used to images being delivered to them on film.

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(*Id.*, col. 24, line 60 - col. 25, line 3.)

Rothschild also clearly states that its invention delivers medical images to doctors and radiologists as soon as the images are available, without requiring any type of authentication before the images are delivered:

The central data management system (30) actively "pushes" the electronic records (5) and associated images (6) to the remote image viewing systems (40) of the radiologists and referring doctors as soon as the images are available. This contrasts with the "pull" model where the images are stored on a server and a user has to login and initiate a download in order to view the images.

(*Id.*, col. 22, lines 25-31 (emphasis added).)

In other words, Rothschild describes a system and method where medical images are transferred from an image source (Rothschild's medical imaging system) to a central data management system, then to a remote image viewing system as quickly as possible, with no additional delays introduced by requiring that access to any of the image source, central data management system, and/or remote image viewing system be authenticated.

The only disclosure in Rothschild of any authentication occurs in one embodiment, namely an embodiment that includes a polling system within a remote viewing station. (*Id.*, col. 15, lines 54-65.) In this embodiment, the polling system automatically polls the central data management system for medical data that is queued for delivery to the remote viewing station. (*Id.*) The polling system determines the IP address of the remote viewing station and notifies the central database (assumed to be part of the central data management system) of its current IP address. (*Id.*, col. 15, lines 58-59.) An IP notifier of the polling system then notifies the central database of the IP address "after proper authentication." (*Id.*) In other words, the only

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authentication disclosed in Rothschild is the authentication of a remote viewing station's current IP address.

B. Claim 1: None Of The References Teaches Or Suggests The Recited Status Monitor

Alisuag does not teach or suggest at least any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized remote data store when the request is triggered, as recited in claim 1. Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device. (*Id.*, ¶¶ 11, 12, 14.) Alisuag does not teach or suggest, among other things, any status monitor such as that recited in claim 1.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai and Alisuag, the combination also fails to teach or suggest elements of claim 1. For example, as described above, none of Rothschild, Kumagai and Alisuag, teach or suggest at least any status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the data source transmits the data to a centralized remote data store when the request is triggered, as recited in claim 1. Therefore, a combination of Rothschild, Kumagai and Alisuag also fails to teach or suggest at least these elements of claim 1.

The present rejection encompasses claims 3 and 4. The Applicant respectfully submits that none of Rothschild, Kumagai and Alisuag, taken alone or in combination, teaches or

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suggests elements of at least claims 1 and 4. Claims 3 and 4 depend from claim 1. Therefore, claims 3 and 4 should be allowable.

3. Rothschild In View Of Kumagai And Further In View Of Dethloff

The Applicant next turns to the rejection of claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, and further in view of Dethloff. Dethloff describes a method and system for securing and restoring data of a portable chip-card if lost or stolen. Specifically, Dethloff describes a data medium 10 (such as a chip-card) and a terminal 20. (Dethloff, col. 3, lines 23-27.) Data representing the total amount of available memory is written into a memory section 16 of data medium 10. (*Id.*, col. 3, lines 53-61.) The terminal displays the data and changes the data according to corresponding operation of the terminal. (*Id.*, col. 1, lines 38-42.)

However, Delthoff does not remedy the shortcomings of Rothschild and Kumagai, as described above. Delthoff does not teach or suggest any status monitor at all, much less a status monitor that (1) monitors operations occurring at a data source and (2) triggers an archive request after medical data is obtained by the data source, where the medical data is transferred to a centralized remote data store when the archive request is triggered, as recited in claim 1. Rather, Delthoff is limited to describing only a data medium (such as a chip card) that merely stores data and a terminal that merely stores and displays data. Delthoff does not describe any status monitor.

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Assuming for the sake of argument that one would be motivated to combine Rothschild, Kugamai and Delthoff, the combination also fails to teach or suggest elements of at least claim 1. As described above, each of Rothschild, Kumagai and Delthoff fails to teach or suggest the status monitor recited in claim 1.

The present rejection encompasses claim 6. The Applicant respectfully submits that none of Rothschild, Kumagai and Delthoff, taken alone or in combination, teaches or suggests elements of at least claim 1. Claim 6 depends from claim 1. Therefore, claim 6 should be allowable.

4. Rothschild In View of Kumagai And Further In View Of Parvulescu

The Applicant next turns to the rejection of claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Kumagai, and further in view of Parvulescu. Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild and Kumagai, as described above. While Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu does not include any disclosure of a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive. (Parvulescu, col. 4, lines 30-36.) There is no teaching or suggestion of any device or routine that either monitoring operations occurring at a data source or triggers the archiving of medical data

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when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, assuming for the sake of argument that one would be motivated to combine Rothschild, Kumagai and Parvulescu, the combination also fails to teach or suggest elements of at least claim 1. As described above, each of Rothschild, Kumagai and Parvulescu fails to teach or suggest a status monitor (1) monitoring operations occurring at a data source and (2) triggering an archive request after the medical data is obtained by the data source, as recited in claim 1. Therefore, a combination of these references also fails to teach or suggest at least this element.

The present rejection encompasses claims 11-14. The Applicant respectfully submits that none of Rothschild, Kumagai and Parvulescu, taken alone or in combination, teaches or suggests elements of at least claim 1. Claims 11-14 depend from claim 1. Therefore, claims 11-14 should be allowable.

5. Rothschild In View Of Dethloff

The Applicant next turns to the rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff. As described above, Rothschild merely describes a medical image management system where a medical imaging system obtains medical images and transmits these images to a central data management system. (column 18, lines 39-56.) Once the image data is stored at the central data management system,

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the images may be "pushed" to image viewing systems for users to view the images. (column 18, line 57 - column 19, line 15.)

Rothschild fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. There is no teaching or suggestion in Rothschild for the automatic detection and restoration of erroneous medical data from a centralized remote data store to a data source. While Rothschild may disclose the communication of medical images from a central data management system to one or more viewing stations, this communication is not taught or suggested by Rothschild to occur as a result of a detected error in the medical image. That is, Rothschild does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Dethloff does not remedy the shortcomings of Rothschild, as described above. Dethloff also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. The only disclosure in Dethloff describing any restoration of any data is shown below:

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The first terminal is in the possession of the rightful owner of the data medium and serves the purpose, for example, of displaying data in the data medium and changing such data in the rightful manner through the corresponding operation of the terminal, for example in order to transfer amounts of money to a cash terminal of a vendor. According to the invention this terminal serves additionally for storing the data contained in the data medium so that, for example in the event the data medium is lost, the data in the terminal are retained. It is assumed that the user normally stores the data medium and the terminal in different locations. The data lost with the data medium can in that case be restored again with the aid of the terminal. The data medium is advantageously in the form of a card.

(Dethloff, col. 1, lines 38-51.) Therefore, the first terminal of Dethloff acts as a data repository that may be returned to if data stored on the data medium or card becomes lost, the person in possession of the data medium or card can return to the first terminal and download the lost data to the card. (*See id.*, col. 4, line 45 - col. 5, line 6.)

However, the data restoration described in Dethloff does not involve any status monitor performing any automatic detection of anything, much less the automatic detection of an error in medical data at a data source. Specifically, Dethloff does not describe any device, apparatus, object, software or otherwise performing any automatic detection of any error in any type of data.

Second, Dethloff fails to teach or suggest any status monitor that instructs a data store to transmit data to a data source to restore medical data once an error in data is detected. Dethloff merely describes storing a backup of data at a terminal, where the terminal can be returned to if and when a copy of the data stored on a data medium becomes lost or if the medium itself is lost. (*Id.*, col. 1, lines 38-51; col. 4, line 45 - col. 5, line 6.) This data restoration does not involve any

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status monitor instructing the first terminal to transmit data to the data medium once an error is detected.

Therefore, like Rothschild, Dethloff also fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Assuming for the sake of argument that one would be motivated to combine Rothschild and Dethloff, the combination also fails to teach or suggest all elements of claim 15. As described above, both Rothschild and Dethloff fail to teach or suggest a status monitor automatically detecting medical data error and instructing a data store to transmit data to restore the erroneous medical data. Therefore, a combination of the references also fails to teach or suggest at least this element.

The present rejection encompasses claims 15-18 and 20. The Applicant respectfully submits that neither Rothschild nor Dethloff, taken alone or in combination, teaches or suggests all elements of claim 15. Claims 16-18 and 20 depend from claim 15. Therefore, claims 15-18 and 20 should be allowable.

6. Rothschild In View Of Dethloff, And Further In View Of Alisuag

The Applicant next turns to the rejection of claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff, and further in view of Alisuag. As described above, both Rothschild and Dethloff, whether considered alone or in combination, fail to teach or

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suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15. Alisuag does not remedy these shortcomings.

As described above, Alisuag describes a computer oriented record administration system. However, Alisuag does not teach or suggest any error detection, much less automatic error detection by a status monitor that also instructs a centralized remote data store to transmit data to restore the erroneous data. Therefore, each of Rothschild, Dethloff and Alisuag fails to teach or suggest elements of claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Dethloff and Alisuag, the combination also fails to teach or suggest elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, a combination of these references also fails to teach or suggest these elements.

The present rejection encompasses claim 19. The Applicant respectfully submits that none of Rothschild, Dethloff and Alisuag, considered alone or in combination, teaches or

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suggests elements of claim 15. Claim 19 depends from claim 15. Therefore, claim 19 should be allowable.

7. Rothschild In View Of Dethloff

The Applicant next turns to the rejection of claim 23 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Dethloff. As described above with respect to the rejection of claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Dethloff, both Rothschild and Dethloff (whether considered alone or in combination), fail to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

The present rejection encompasses claim 23. The Applicant respectfully submits that neither Rothschild nor Dethloff, considered alone or in combination, teaches or suggests elements of claim 15. Claim 23 depends from claim 15. Therefore, claim 23 should be allowable.

8. Rothschild In View Of Dethloff, And Further In View Of Parvulescu

The Applicant next turns to the rejection of claim 24 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Dethloff, and further in view of Parvulescu. As described above, Rothschild and Dethloff, whether considered alone or in combination, fail to

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teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error, as recited in claim 15.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild and Dethloff. Parvulescu merely describes a medical image processing system that provides for a user to capture a medical image and store the image data locally, on a portable media (such as a CD), or on a network server (communicated to the server via a network connection). (Parvulescu, col. 3, lines 18-39.) Parvulescu merely provides for the obtaining and storage of image data--there is no detection of errors in the image data nor is there any restoration of the erroneous image data once it is detected taught or suggested by Parvulescu. Therefore, Parvulescu does not teach or suggest automatically detecting an error in medical data at a data source or instructing a centralized remote data store to transmit data to the data source in order to restore the erroneous medical data, as recited in claim 15.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Dethloff and Parvulescu, the combination also fails to teach or describe elements of claim 15. As described above, each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical

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data that includes the error. Therefore, these references all fail to teach or describe elements of claim 15.

The present rejection encompasses claim 24. The Applicant respectfully submits that none of Rothschild, Dethloff and Parvulescu, considered alone or in combination, teaches or suggests clements of claim 15. Claim 24 depends from claim 15. Thercfore, claim 24 should be allowable.

9. Rothschild In View Of Parvulescu

The Applicant next turns to the rejection of claims 25-29, 31-34 and 53-54 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu.

A. Claim 53

Claim 53 depends from claim 1. As described above with regard to the rejection of claim 1, Rothschild does not teach or suggest at least a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1.

Parvulescu describes a medical image processing system. However, Parvulescu does not remedy the shortcomings of Rothschild with regards to claim 1, as described above. Specifically, while Parvulescu generally describes a system for obtaining and archiving medical images, Parvulescu is entirely devoid of any disclosure of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive rcuest after the medical data

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is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. Parvulescu merely describes an archiving device 100 that receives an analog signal from a image capture device 204 and stores the image in digital form on an internal hard drive. (Parvulescu, col. 4, lines 30-36.) There is no teaching or suggestion of any device or routine that either controls data transfer or triggers the archiving of medical data when medical data is obtained. Therefore, Parvulescu does not teach or suggest elements of at least claim 1.

In addition, a combination of Parvulescu and Rothschild also does not teach or suggest elements of at least claim 1. As explained above, both Parvulescu and Rothschild lack any teaching or suggestion of a status monitor that (1) monitors operations occurring at the data source and (2) triggers an archive request after the medical data is obtained by the data source, where the data source transmits the medical data to the centralized remote data store when the archive request is triggered by the status monitor, as recited in claim 1. As claim 53 depends from claim 1, Parvulescu and Rothschild, whether considered alone or in combination, fail to teach or suggest elements of claim 53.

B. Claim 54

Claim 54 depends from claim 15. As described above with regard to the rejection of claim 24 (which also depends from claim 15), neither Rothschild nor Parvulescu, considered alone or in combination, teaches or suggests elements of claim 15. Each of these references fails to teach or suggest a status monitor that (1) automatically detects an error in medical data at a data source by detecting at least one of data loss, data corruption, and a failure of a medical data

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storage system and (2) instructs a centralized remote data store to transmit data to the data source in order to restore the medical data that includes the error. Therefore, these references all fail to teach or describe elements of claim 15. As claim 54 depends from claim 15, Parvulescu and Rothschild, whether considered alone or in combination, fail to teach or suggest elements of claim 54.

C. Claim 25

With regard to claim 25, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest elements of claim 25. Claim 25 recites detecting the obtaining of medical data at a data source and transferring the medical data from the source to a centralized remote data store based on a trigger. The trigger of claim 25 is produced by a status monitor after the data is obtained. As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Therefore, the Applicant respectfully submits that neither Parvulescu nor Rothschild, alone or in combination, teach or suggest elements of at least claim 25.

The present rejection encompasses claims 25-29, 31-34 and 53-54. The Applicant respectfully submits that neither Rothschild nor Parvulescu, considered alone or in combination, teaches or suggests elements of claims 1, 15 and 25. Claims 26-29, 31-34 and 53-54 depend from claims 1, 15 and 25. Therefore, claims 25-29, 31-34 and 53-54 should be allowable.

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10. Rothschild In View Of Parvulescu, And Further In View Of Alisuag

The Applicant next turns to the rejection of claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild in view of Parvulescu, and further in view of Alisuag. As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Alisuag does not remedy these shortcomings of Rothschild and Parvulescu. Alisuag does not teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Alisuag merely describes the obtaining of a passkey by a first user and the communication of the passkey to a second user so that both users can access data stored on a portable memory device. (Alisuag, ¶¶ 11, 12, 14.) Alisuag does not teach or suggest any detection of when data is obtained at any source, or transferring data based on a trigger produced by a status monitor. Therefore, Alisuag also does not teach or suggest elements of claim 25.

Moreover, assuming for the sake of argument that one would be motivated to combine Rothschild, Parvulescu and Alisuag, the combination also fails to teach or suggest elements of claim 25. As described above, each of these references fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data

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source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained. Therefore, each of these references fails to teach or suggest elements of claim 25.

The present rejection encompasses claim 30. The Applicant respectfully submits that none of Rothschild, Parvulescu and Alisug, considered alone or in combination, teaches or suggests elements of claim 25. Claim 30 depends from claim 25. Therefore, claim 30 should be allowable.

11. Rothschild In View Of Parvulescu, And Further In View Of Dethloff

The Applicant next turns to the rejection of claims 35 and 36 under 35 U.S.C. § 103(a) as unpatentable over Rothschild in view of Parvulescu, and further in view of Dethloff.

As described above, neither Parvulescu nor Rothschild, alone or in combination, teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25. Dethloff does not remedy these shortcomings of Parvulescu and Rothschild.

Dethloff does not teach or suggest the detection of when any data is obtained by a source and transferring data from a source to a remote store based on a trigger produced after data is obtained. Rather, Dethloff is limited to describing a data medium (such as a chip card) that stores data and a terminal that stores and displays data. Data can be transferred from the data medium to the terminal and vice-versa, but no detection of when data is obtained by a source is

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taught or suggested. Therefore, Dethloff also fails to teach or suggest detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained, as recited in claim 25.

Assuming for the sake of argument that one would be motivated to combine Rothschild, Parvulescu and Dethloff, the combination also fails to teach or suggest elements of claim 25. As described above, none of these references teaches or suggests detecting when medical data is obtained at a medical data source and transferring the medical data from a data source to a centralized remote data store based on a trigger, where the trigger is produced by a status monitor after the data is obtained. Therefore, a combination of these references also fails to teach or suggest elements of claim 25.

The present rejection encompasses claims 35 and 36. The Applicant respectfully submits that none of Rothschild, Parvulescu and Dethloff, considered alone or in combination, teaches or suggests elements of claim 25. Claims 35 and 36 depend from claim 25. Therefore, claims 35 and 36 should be allowable.

The Applicant respectfully submits that the claims of the present application should be allowable over the prior art.

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CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 07-0845.

Respectfully submitted,

Date: March 10, 2006


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